

Doppler Effect

Section 12-1

Definition

- ◆ Doppler Effect: The apparent change in frequency of a wave due to the motion of the source or receiver or both

Applet

- ◆ [Link to Doppler Applet](#)

Applications?

- ◆ SONAR: Sound Navigation and Ranging
- ◆ Bats, Dolphins, Whales
- ◆ Why use high frequencies?
- ◆ RADAR: Radio Detection and Ranging
- ◆ Doppler RADAR
- ◆ Cosmic applications, red shift/blue shift

Going Super-Sonic

- ◆ [Link to Doppler Applet](#)
- ◆ Bow wave
- ◆ Sound barrier
- ◆ Does the sonic boom only happen at the moment something cracks the sound barrier or is it continuously pulled along behind the object?

Planes cracking the sound barrier







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Video of an F-14 breaking the sound barrier

- ◆ [Link to video](#)
- ◆ [Link to video with sound of one that already broke the sound barrier](#)